

**TYPES OF CHEMICAL REACTIONS ASSESSMENT**

Work with a partner to do the following for each reaction:

- Write the chemical formula for each reactant
- Perform the reaction
- Identify how you know a chemical reaction has taken place
- Determine the product(s) of the reaction
- Write a balanced chemical equation, including the states of the compounds
- Identify the type of reaction that took place (eg. synthesis, neutralization, etc)

Hand in the completed lab at the end of the period. Note that wherever a reaction calls for 1 mL of a substance, you should use one pipette-full of that substance.

**Teacher Demonstration:**

1. Add 1 mL of concentrated sulfuric acid to 10 g of table sugar ( $C_{12}H_{22}O_{11}$ )

Reactants:

Observations/evidence of chemical change:

Products:

Balanced chemical equation:

Type of reaction:

**Student Experiments:**

- Put a small amount of iron and 3 pipettes of copper (II) chloride on a watch glass.

Reactants:

Observations/evidence of chemical change:

Products:

Balanced chemical equation:

Type of reaction:

- Put 1 mL of barium chloride in a test tube, then add 1mL of sodium sulfate.

Reactants:

Observations/evidence of chemical change:

Products:

Balanced chemical equation:

Type of reaction:

4. Add 10 drops of silver nitrate (be careful! It will stain) to a piece of copper wire on a watch glass and allow it to sit for about 5 minutes before you record any changes.

Reactants:

Observations/evidence of chemical change:

Products:

Balanced chemical equation:

Type of reaction:

5. Add 1 mL of hydrochloric acid to a watch glass, and use blue litmus paper to identify if it is acidic (blue litmus paper turns red in acid). Add 1 mL of sodium hydroxide, and swish. Use blue litmus paper to test for acidity.

Reactants:

Observations/evidence of chemical change:

Products:

Balanced chemical equation:

Type of reaction:

### **KNOWLEDGE/UNDERSTANDING**

- /5 Identifies various types of reactions
- /5 Writes correct chemical formulas for reactants and products

### **APPLICATION**

- /5 Predicts the products of various reactions
- /2 Experiments to test the predictions of the products of various reactions

### **THINKING**

- /5 Balances chemical equations by inspection

### **COMMUNICATION**

- /2 Communicates information (observations) clearly and accurately
- /1 Communicates information using an appropriate format